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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,056	09/25/2000	BILLY G MOON	062891.0467	4094

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EXAMINER
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EUGENE, WANDA

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/670,056

Applicant(s)

MOON ET AL.

Examiner

Wanda Eugene

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09/25/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 29-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 29-37 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>3</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                           |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-28, drawn to mobile unit performing handover classified in class 370, subclass 331.
  - II. Claims 29-37, drawn to a base transceiver station, classified in class 455, subclass 561.
2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as in wireless handoff where the mobile unit is capable of selecting a best signal transmitted from a base station whereas in Group II, the claimed invention is directed to operation of a base station. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
6. During a telephone conversation with Attorney Kurt Pankratz on 03/04/04, a provisional election was made without traverse to prosecute the invention of group I, claims 1-28.

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Affirmation of this election must be made by applicant in replying to this Office action. Claims of group II withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-28 rejected under 35 U.S.C. 102(b) as being anticipated by Umeda et al. (5, 920,817).

Regarding claims 1, 8, 15 and 22 Umeda et al discloses a mobile unit (**mobile station 100** fig. 7) comprising a wireless interface operable to: receive a first graded packet (**identical packet signals transmitted between the mobile and base stations**) from a first base transceiver station (**base station 120a** fig. 7) using a first wireless link (**the reception part of the mobile station has n sets of reception sequences to receive signals simultaneously from n sets of base stations by establishing n sets of radio channels** col. 7 lines 19-27), wherein the first graded packet includes a first metric (**reliability information** fig. 5) associated with the first

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wireless link; and receive a second graded packet from a second BTS (**base station 120b** fig. 7) using a second wireless link (**the mobile station receives the signal from both the base station and composes the actual reception signal utilizing the reliability information for these received signal** col. 4 lines 64-67), wherein the second graded packet includes a second metric (**reliability information** fig. 5) associated with the second wireless link; and a processor operable to compare the first metric and the second metric (**function for measuring the reliability information for each received packet** col. 14 lines 29-30) and to select either the first graded packet or the second graded packet based on the comparison (**mobile station selects one of the received packets signals by a fixed selection scheme** col. 12 lines 49-53).

Regarding claims 2, 9, 16 23, Umeda et al. discloses the first graded packet further includes a packet identifier, and the second graded packet further includes the packet identifier (**a packet obtained as a output comprising a sequence number  $P_2$**  col. 15 lines 24-32 fig 10).

In regards to claims 3, 10, 17 and 24, Umeda et al. discloses the first graded packet and the second graded packet each further includes voice information from a remote device (**the speech/data entered into the mobile station 100 are put into forms of packets** col. 15 lines 52-54).

Regarding claims 4, 11, and 18 and 25, Umeda et al. discloses further an output device operable to generate an audio signal based on the voice information from the selected graded packet (**a decoder connected with the signal composition circuit, outputting the reception signal** col. 5 line 61-62).

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In regards to claims 5, 12, 19 and 26, Umeda et al. discloses, a first metric encoded in the first graded packet by the first BTS, and the second metric is encoded in the second graded packet by the second BTS (**the operation of the first base station is substantially the same as the second base station, in which the reliability information for each packet from a plurality of base stations 120a and 120b are supplied to the corresponding packet selection circuits 230a and 320b and is measured and outputted to the packet selection and composition circuit in correspondence to each packet** col. 17 lines 53-59).

Regarding claims 6, 13, 20 and 27, Umeda et al. discloses, wherein each of the first metric and the second metric is a selected one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio (**the reliability information for each packet can be any quantity which indicates the signal transmission quality such as a reception level, signal to interference ratio an error detection code, etc** col. 19 lines 1-4).

Regarding claims 7, 14, 21 and 28, Umeda et al. discloses, an input device operable to receive voice information from a user, a processor further operable to generate a packet encoding the voice information (**the speech/data entered into the mobile station put into forms of packets by the packet generating circuit** col. 15 lines 52-54), and the wireless interface further operable to communicate the packet for reception by the first BTS and the second BTS (**the mobile station transmits the packet signal to base stations 120a and 120b** col. 12 lines 24-26).

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**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mohebbi (US 2002/0058481) Soft hand-off in cellular mobile communications networks.

Sato (6,233,454) Mobile station

Tari et al. (2003/0195001) System, method and apparatus for providing mobile wireless communications

Odenwalder (6,603,751) Method and system for performing a handoff in a wireless communication system, such as a hard handoff

Raith (6,044,270) Apparatuses and methods for signal strength measurement in a wireless communication system

Demetrescu et al. (6,647,262) Cellular radio communication handover systems

Padovani et al. (6,151,502) Method and apparatus for performing soft hand-off in a wireless communication system


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Eugene whose telephone number is 703-305-8978. The examiner can normally be reached on M-F 7am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 703-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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RICKY NGO  
PRIMARY EXAMINER